



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8, MONTANA OFFICE
FEDERAL BUILDING, 10 W. 15th STREET, SUITE 3200
HELENA, MONTANA 59626

Ref: 8MO

MEMORANDUM

DATE: July 27, 2007

SUBJECT: East Helena Site – “Cross-cutting” CERCLA and RCRA authorities

FROM: Scott Brown, Remedial Project Manager

TO: Julie DalSoglio, Deputy Director, Montana Office

The following information is an updated summary of finished and unfinished aspects of studies and work conducted on the former primary lead smelter site at East Helena, with an emphasis on the “cross-cutting” issues that have arisen due to separate CERCLA and RCRA authorities.

A general timeline is useful for perspective.

1888 – Helena and Livingston Co. constructed a primary lead smelter east of Helena and began receiving ores and concentrates from various regions of the state

1895 (circa) – American Smelting and Refining Company (ASARCO) acquired the East Helena lead smelter; enlarged smelting capacity

1927 – Anaconda Minerals Company constructed a zinc fuming plant adjacent to the lead smelter to recover zinc oxide from the by-product slag

1947 – American Chemet Corporation constructed a plant adjacent to the fuming plant to produce zinc-based pigments for paints (an early alternative to lead-based pigments)

1972 – ASARCO acquired the zinc fuming plant from AMC, but discontinued fuming the slag by 1982

1983 – 1984 – East Helena smelter and surrounding environment studied and placed on the National Priorities List of uncontrolled hazardous waste sites

1984 – 1990 – EPA and ASARCO entered into a series of consent agreements to conduct comprehensive remedial investigations, an endangerment assessment and risk assessment, and feasibility studies; substantial studies were conducted with EPA oversight



1988 – Record of Decision for Process Ponds Operable Unit; Consent Decree followed in 1990; remedial design and remedial action on four subunits conducted; construction began in 1991

1991 – EPA and ASARCO entered into a consent order to conduct a non-time critical removal action for residential soils

1991 – 1996 – ASARCO contractors conducted remedial action construction on process ponds (majority of tasks completed by 1995 – 1996) and removal action construction on residential soils, with EPA oversight; discussions began regarding transfer of authority for “the plant site” to RCRA program; transfer of such authority to RCRA occurred circa 1996 – 1997

2001 (April) – ASARCO discontinued smelting operations altogether; began dismantling and demolishing; bankruptcy protection proceedings initiated and environmental trust fund established follow shortly thereafter

2001 – 2007 – ASARCO (aka Asarco and Asarco, LLC) continued the residential removal action and studies and actions under RCRA (both federal and state RCRA authorities oversight)

I reviewed several pertinent documents in our records center. Six such documents are particularly noteworthy, as the first four documents listed below provide a detailed—very detailed—record of CERCLA-required remedial design and remedial action construction activities related to the process ponds and process fluids circuitry. The last two documents listed—two Five-Year Reports required under CERCLA--provide useful summaries of construction actions completed and construction actions either modified when transferred from CERCLA to RCRA or “set aside” for further study under the RCRA facility investigations (RFI).

1. New Construction Preliminary Design Report, Process Ponds Operable Unit, April 1, 1991.
 2. Pre-Final Design Report for New Construction, Acid Water Reclaim Process (Appendix D), November 25, 1991.
 3. Pre-Final Design Report for New Construction (all 4 subunits and stormwater containment facility), December 1, 1991.
 4. Pre-Final Design Report for Reduction of Process Circuit Gains, December 1, 1991. (These design reports were approved by EPA and, during remedial action construction, weekly progress reports were provided and frequent technical oversight meetings were conducted. All such progress reports, drawings and modification documents—all 720 of them—are available in our records center.)
 5. Five-Year Review, East Helena Superfund Site, August 1999.
 6. Second Five-Year Review Report, East Helena Superfund Site, March 2006.
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The Process Ponds Operable Unit (and process fluids circuitry) was comprised of four main subunits: Lower Lake, former Thornock Lake, the speiss pit and pond, and the acid plant water treatment facility. Briefly, the remedial action under CERCLA was designed and intended to eliminate or significantly reduce known sources of highly contaminated ground water, which had migrated down-gradient (northward), and was continuing to migrate, such that the shallow- and

intermediate-depth aquifer was impacted over a large area underlying the town of East Helena. Upon transfer of authority of the plant site, from CERCLA to RCRA authorities, portions of the remedial action had not been completed, and other portions of the remedial action proved to be less successful than desired in interrupting the sources and pathways of ground water contamination.

The attached materials, excerpted from CERCLA's two Five-Year Review reports, detail remedial actions completed, as well as those not completed and those deemed to produce less than desired results.

In order to "complete this assignment," that is, to coalesce the activities of both the CERCLA and RCRA programs, past, present and future, I recommend that we should conduct the necessary phone conferences or meetings with Denver-based RCRA officials and refine the "flow chart" that you constructed in rough draft form this week. That action will draw out the unfinished and as yet undecided aspects of the CERCLA – RCRA cross-cutting issues that we face.